AMERICAN BIRD CONSERVANCY

Bringing back the birds

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Brian Rushforth
Chief of Staff
Office of Commercial Space Transportation
Federal Aviation Administration
Brian.rushforth@faa.gov

Katherine B. Andrus
Manager, Environmental Policy and Operations (AEE-400)
Office of Environment and Energy
Federal Aviation Administration
Katherine.andrus@faa.gov

Stacey M. Zee
Environmental Protection Specialist
Federal Aviation Administration
Stacey.zee@faa.gov

Dear Mr. Rushforth, Ms. Andrus & Ms. Zee,

American Bird Conservancy (ABC) is a 501(c)(3) organization whose mission is to conserve native birds and their habitats throughout the Americas. We respectfully request that the Federal Aviation Administration (FAA) consider the following comments during the Environmental Assessment (EA) scoping process for SpaceX's Starship Super Heavy Project in Boca Chica, Texas. Given the significant project scope changes from the initial 2014 Record of Decision (ROD) and the US Fish and Wildlife Service's (USFWS/the Service) Biological Opinion (BO), we are certain a new Environment Impact Statement (EIS) for this project is justified. Many of the actions currently occurring at this site are creating far more environmental impacts than what was originally planned and operations continue regardless of SpaceX's blatant violations of what was originally agreed upon in the ROD and BO.

The ecological importance of this region cannot be overstated. The SpaceX site is surrounded by critically important and sensitive habitat for many declining wildlife species, including the federally Threatened Piping Plover and Red Knot. The Service designated Critical Habitat for Piping Plovers (TX-01) that directly overlaps the site (see map). Another Piping Plover Critical Habitat designation is adjacent to the SpaceX site across the channel that separates the Laguna Madre from South Bay. While a Critical Habitat designation does not necessarily prevent development, it does require that federal agencies "ensure that actions they plan to undertake, fund, or authorize do not destroy or adversely modify that habitat"

1731 Connecticut Avenue, NW, 3rd Floor • Washington, D.C. 20009
Tel: 202-234-7181 • Fax: 202-234-7182 • abc@abcbirds.org • www.abcbirds.org

(https://www.fws.gov/endangered/what-we-do/critical-habitats.html). The FAA is not ensuring such measures.

The Lower Rio Grande Valley National Wildlife Refuge (NWR), Boca Chica State Park, Brazos Island State Park, and Las Palomas Wildlife Management Area-Boca Chica Unit all surround the SpaceX site. These conservation areas are home to some of the country's most diverse communities of wind tidal flats, mid-delta thorn forest, and mid-valley riparian woodlands that support rare, endangered, and threatened species, making it critically important to ensure impacts to these natural resources are minimized.

Furthermore, this area is an incredibly important region for migratory birds, with hundreds of thousands of birds depending on Boca Chica habitat during fallouts when they need to rest and refuel before continuing on with their journey – this includes numerous rare and federally Threatened and Endangered species. While there are some preliminary data available pertaining to bird abundance and distribution in this region (prior to and during SpaceX construction activities), there is not enough existing information to fully understand the impacts that the SpaceX Starship Super Heavy Project activities will have on avian populations, other wildlife, and habitats (Critical Habitat designations or otherwise).

Boca Chica – A Critically Important Region for Migratory Birds

The Laguna Madre is designated as a bi-national (U.S. and Mexico) WHSRN (Western Hemisphere Shorebird Reserve Network) site, meaning it is globally recognized as a site that is critically important to declining shorebirds. The Laguna Madre is just north of the SpaceX site and contains many acres of USFWS Piping Plover Critical Habitat designations, in addition to TX-01 which directly overlaps the SpaceX site. According to a recent study (Rosenberg et al 2019), North America has lost 2.9 billion birds since 1970. There are many factors that contribute to these declines, but habitat loss and degradation rank among the highest. Shorebirds (i.e. Red Knots, Piping Plovers and others), a guild of birds already in steep decline, have lost 17 million individuals (37% decline) and exhibit the steepest loss compared to many landbird and other waterbird populations.

During the SpaceX construction phase, monitoring conducted by the University of Texas Rio Grande Valley between July 2017 and September 2018 documented 793 Federally Threatened Red Knots on April 8, 2018. This concentration was a migration event and these birds were moving either from wintering grounds in Tamaulipas, Mexico to Texas or were making a longer trek from South America to the arctic. Thus, these observations support the Laguna Madre WHSRN designation and USFWS Critical Habitat designations. Recent Red Knot population estimates of the Western Gulf (Texas and Louisiana) and Texas Wintering populations are 5,500 and 3,000 respectively (David Newstead, Coastal Bend Bays and Estuaries, personal

communication). Considering these numbers, that means that 14.4% to 26.4% of those populations were present that day – a significant overall proportion of the totals.

Data from the 2011 International Piping Plover Census indicate that approximately 50% of the total Piping Plover population winters on the Texas coast (Elliott-Smith et al. 2015), making the Texas coast important for the species. During 2017-2018 SpaceX construction phase monitoring (Hicks et al 2018), a maximum of 98 Piping Plovers and 205 Red Knots were observed within a designated quadrat on the same day. Between December 8, 2018 and February 20, 2019, there were nine occasions where Piping Plovers were documented in groups of over 100 individuals - those ranged from 122 – 166 individuals (David Newstead, Coastal Bend Bays and Estuaries Program, unpublished data). In February of 2009, Sid Maddock observed 239 Piping Plovers, of which 32 were banded. Banded birds were primarily from the U.S. Northern Great Plains population (20 of the 32) with portions from Canada and the Great Lakes as well.

According to the 2011 International Piping Plover Census, 2,145 wintering plovers were counted in Texas, meaning that *a minimum* of 5.7% to 11.1% of the wintering population uses the Boca Chica region (based on the aforementioned observations). In actuality these numbers and percentages are likely higher considering there are not regular monitoring efforts occurring to consistently account for the number of Piping Plovers using this area on a regular basis and during migration in any given year. Recovery plans for Piping Plovers in their breeding range recognize that survival and recovery of the species is dependent on the continued availability of sufficient habitat in their coastal migration and wintering range (USFWS 2015).

The Draft Revised Recovery Plan for the Wintering Range of the Northern Great Plains Piping Plover *and* Comprehensive Conservation Strategy for the Piping Plover in its Coastal Migration and Wintering Range in the Continental United States Volume II (USFWS 2015) recommends strategies with specific tasks to minimize threats to Piping Plovers in their migration and wintering coastal habitats. Plover species are known to have strong site fidelity, meaning they come back to the same area each wintering season after they finish breeding further north (i.e. Northern Great Plains or Great Lakes). Research has shown that disturbance doesn't impact site fidelity, so the birds will continue to return to the same areas even if the habitat becomes disturbed and/or the quality of the habitat degrades – this results in lower survival overall (Gibson et al 2018). Current and proposed SpaceX activities are both a direct threat and a disturbance to the birds, which justifies a full EIS to fully evaluate potential impacts with possible alternatives and mitigation strategies.

SpaceX Activities Require a New EIS

The 2014 ROD [FAA Order 1050.1F, Section 9-2] states that a supplemental EIS is not needed if one of the following three conditions applies:

- "The proposed Action conforms to plans or projects for which a prior EIS has been filed and there are no substantial changes in the Proposed Action that are relevant to environmental concerns.";
- "Data and analysis contained in the previous EIS are still substantially valid and there are no significant new circumstances or information relevant to environmental concerns and bearings on the Proposed Action or its impacts.";
- "All pertinent conditions and requirements of the prior approval have, or will be, met in the current actions.".

SpaceX's activities do not meet any of these conditions. Current SpaceX activities were not planned and included in the original EIS (which is now seven years old) or the BO. The initial project that was authorized in 2014 allowed for up to 12 launches of Falcon 9 or Falcon Heavy rockets each year. Instead, the mission has changed to one of testing of various components and rockets/vessels including the Starship and Super Heavy, which are nearly ten times the mass, requiring far greater fuel loads and thrust and fuel that is more volatile and explosive than the Falcon 9. Testing of the Starship and Super Heavy booster prototypes have taken place on a 24-hour 7-day type of schedule with near-daily closures that mostly occur during business/daylight hours (0800-1700). The FAA's Draft EA from May 2020 says "As flight tests become more successful SpaceX anticipates increasing orbital launch events" which equates to an unknown frequency of testing and launches.

Some of this testing resulted in explosions that put fuselage, debris, and fuel into the environment. In July of 2019, the Starhopper hop test resulted in an explosion that set 100 acres of Boca Chica State Park on fire. After the July 2019 fire, SpaceX installed five water cannons as a fire prevention measure. Such measures should be taken for any future development that may result in fires, but additional coordination with USFWS and local fire agencies (i.e. Brownsville Fire Department) is prudent and necessary.

In 2020, there were at least 3 explosions, some of which resulted in more fires that burned smaller areas (than 100 acres) of public lands. These explosions directly impact designated Critical Habitat used by federally listed and other declining species, and a new EIS should account for these scenarios. SpaceX is proposing additional infrastructure expansion, including another launchpad, a natural gas plant, 5 natural gas wells (established via convention drilling), desalination plant, solar farm, and towers. No information has been provided to evaluate such impacts. Appropriate analyses of noise, light, vibration, release of hazardous fuels and vapors, and frequency of these events (along with mitigation strategies) related to CURRENT and future activities should be included in an EIS.

Road closures occur frequently because testing occurs frequently, with announcements to the public usually occurring at the last minute. This creates issues with access for residents, visitors, and natural resource staff to the area. In the FAA's May 2020 draft EA, it states "Approximately

two weeks in advance of an operation requiring a closure, SpaceX would notify the Cameron County Commissioner's Court of the proposed operation date, the expected closure times, and back-up closure dates and times." Under current operations, closures occur frequently, at the last minute, and are posted on the Cameron County web site. In one instance, a closure and testing notice printed on a pieces of paper were placed on Boca Chica residents' doors the day of the testing. Updated plans for closures of Highway 4 and Boca Chica Beach need to be developed, published well in advance, and account for access by residents and refuge, state park, and preserve staff (including external stakeholders that support these agencies).

ABC partners and other regional stakeholders impacted by SpaceX activities in 2020, reported that road and beach closures reached nearly 1200 hours over 110 days with numerous last minute public notifications and cancellations. The existing EIS indicates that closures were not to exceed 180 hours *per year*, meaning SpaceX has far exceeded what was originally agreed upon. SpaceX is requesting up to 300 hours (500 hours are documented in the FAA's draft EA from May 2020) per year, which is far less than the closures that actually occurred in 2020. SpaceX has continued to increase testing under the existing (non-applicable) EIS and the closure hours officially logged by SpaceX do not account for the entire time the area is closed to the public – they only log closure hours during the testing period, but in reality, the closure time period is longer. The closure data enclosed herein are based on actual closures accounting for the ENTIRE time that Highway 4 was closed to the public and natural resource staff and stakeholders.

Such actions have far reaching impacts to the lands, wildlife, the public, and the agencies working to conserve habitat and declining species throughout the Boca Chica region. With the introduction of the Starship Super Heavy Project, it is more important than ever to better understand the impacts to birds, wildlife, and the habitats they depend on within Boca Chica. *Ensuring continued and regular access to this area is imperative to managing the natural resources and monitoring bird and other wildlife responses to SpaceX activities.*

SpaceX construction and expansion of existing facilities in Boca Chica will further impact the environment and wildlife, not to mention the overall project footprint (originally proposed to be 21 acres). Over the past two years, much of the upland acreage owned by SpaceX (in addition to the launch site) was converted into industrial facilities and parking lots. ABC partners working in the area, have documented that there are typically about 400 vehicles on site per day, which includes heavy trucks delivering fill material and supplies throughout the day.

This influx of vehicles has led to wildlife mortality. ABC's local partner, Coastal Bend Bays & Estuaries Program (CBBEP), found dead animals that include Species of Special Concern (USFWS) and Texas Species of Greatest Conservation Need (SGCN) that were hit by vehicles

along Highway 4 between the checkpoint and the beach. These opportunistic observations from 2020 include 47 individuals representing 22 species of birds, mammals, and reptiles (see attachment). Lower Rio Grande Valley NWR staff found two dead Texas tortoises (in addition to the opportunistic observations), a state Threatened species, on Highway 4 that were hit by vehicles. SpaceX's 2020 annual report says that "FAA/SpaceX employees and construction personnel and FAA inspectors will be educated on the potential for vehicle collisions with wildlife…with strict internal repercussions, to reduce their speeds along SH4 between and within the vertical launch and control center areas to 25 miles per hour."

We can confidently say that this speed limit is NOT adhered to as our partners who work on site have frequently seen dump trucks and other vehicles traveling at high speeds on Highway 4 in and out of the SpaceX facility. The current construction activities and increased traffic related to this were not evaluated in the existing EIS. "Watch out for Wildlife" signage is obviously ineffective since road mortality continues to be an issue. More in-depth education, training, and enforcement is needed to minimize road mortality. A reduced speed limit throughout the entire complex would be ideal, coupled with enforcement of that speed limit and *regular bird monitoring that includes searching (and documenting) for carcasses hit by vehicles*.

Compliance with Future Measures and Terms and Conditions is Essential
SpaceX did not and currently does not comply with the Reasonable and Prudent Measures (related to Conservation Measures) that fed the terms and conditions in the existing BO. To reduce impacts to critically important habitats and species, the following Reasonable and Prudent Measures should be adhered to and used as a basis in creating a new EIS. Additional comments are presented in italicized text.

- **"Coordinate efforts with refuge staff to reduce impacts to refuge lands."** *We are aware of coordination efforts with the Lower Rio Grande Valley NWR to establish protective fencing. This is a positive step in habitat protection and we encourage such collaborations to safeguard habitat and wildlife.*
- **"Submit a detailed Bird Monitoring Plan."** *There are other threatened and endangered species monitoring plans that are critical as well; however, ABC is focused on threats to birds and mitigating for those threats.*
    - **Term & Condition: "Develop a bird monitoring plan for pre, during, and *post construction*. Plan should include the piping plover, red knot, and northern aplomado falcon, and describe how, where, when, and who will be performing the surveys. It should also provide similar information for surveys to be performed during launch operations."** *ABC strongly encourages the FAA and SpaceX to use qualified staff to regularly and continuously perform bird monitoring during all phases of construction and post-construction activities. This includes monitoring along Highway 4 to document wildlife mortality as a result of increased construction activities.*

- **"Submit a detailed Vegetation Monitoring Plan."** *Vegetation biodiversity, abundance, and distribution are an important part of the overall functioning ecosystem that birds and other wildlife depend on for survival. It is our understanding that vegetation monitoring is not occurring on a regular basis and certainly not after fires resulting from explosions. Given the impacts to the habitat, especially when fuselage, fuel, and other debris enter the habitat (and cause fires), ongoing vegetation management and monitoring is justified and necessary.*
    - **Term & Condition: "Develop a vegetation plan to monitor changes in piping plover critical habitat adjacent to the vertical launch area. Figure 15 depicts the 8.66 acres of piping plover critical habitat that will be impacted by the water vapor ground cloud extending a maximum distance of 600 feet beyond the fenceline. Take has been issued for the loss of this habitat. An additional 1000-foot radius encompasses an additional 23.51 acres that may be subject to additional changes but the Service has not issued take for (Figure 16). The detailed vegetation plan should outline how the 23.51 acres will be monitored and action to be taken if changes begin to occur."** *Considering the expansion proposed by SpaceX, the footprint of the overall facility has changed drastically. If the acreage has changed, this needs to be accounted for in a new EIS. Figures refer to the BO document.*
- **"Submit a detailed Stormwater Monitoring Plan."** *According to SpaceX's 2020 annual report, this plan is being updated to account for project changes. We would like to know how the plan has been updated and what is different to account for increased runoff that can cause soil loss and sedimentation, decreased water quality, and environmental pollution/contamination. Trash is entering the ecosystem from construction activities. This is a threat to migratory birds (federally listed or otherwise) and overall ecosystem function. While there are guidelines set forth in the Construction Stormwater Pollution and Prevention Plan to ensure trash is collected, stored, and removed appropriately, it is still entering the habitat. We are pleased to know that SpaceX participates in the Texas General Land Office's Adopt-A-Beach program and participates in beach cleanups; however, additional effort (i.e. weekly or monthly) is needed to contain and remove trash.*
- **"Submit a detailed Light Monitoring Plan."** *In SpaceX's 2020 annual plan they state they will update this plan based on changes to the site. Further, they claim that no light emitted in 2020 had the potential to impact wildlife (i.e. sea turtles), although we refute this as operations and launches did occur at night in 2020 (as SpaceX contradictorily indicates in their 2020 annual plan). Like sea turtles, birds can be disoriented by light, which can interrupt migration or short distance movements.*
- **"Reduce noise related to generator use during construction or operation."** *While it appears that measures are currently being taken to reduce construction noise, we are concerned about noise related to testing and rocket launches. How does this impact birds using the areas surrounding the launch pad? Will it somehow maim the birds, cause hearing loss, or result in neurological health issues? If so, this would certainly impact the bird's ability to 1) survive, and 2) reproduce and raise young that can be recruited into the population. More information is needed and should be included in an EIS.*
- **"Reduce impacts to piping plover habitat during security patrols."** *Do security patrols currently take place? If so, what are the best management practices used to minimize impacts to the habitat and birds during security patrols. In SpaceX's 2020 annual report they say that "no*

security patrol with the potential to impact habitat were conducted." If anyone is doing a security patrol on foot or using an ATV or other vehicle, then the habitat IS being impacted. Best Management Practices to minimize impacts should be laid out in an EIS.

- **"Submit annual reports to the Service."** *The 2020 annual report submitted to the Service is lacking in content and detail that would lend to more effective adaptive management practices and mitigation strategies. The FAA may want to consider designing a template format to ensure that the level of detail needed to make natural resource management decisions and adjustments is present in annual reports.*

It has come to our attention that SpaceX is not *consistently* conducting the required bird or vegetation monitoring set forth in the original ROD and BO. In SpaceX's 2020 annual report, they report avian and vegetation monitoring being conducted from August 1 through November 25, 2020. This is a brief snapshot in time and doesn't provide ample information to understand the context of observations within the seasons of a given year or across several years. If the mean group size of Piping Plovers, Red Knots, and Snowy Plovers "showed some evidence of a negative slope" (Hicks et al 2020), it's quite possible their absence is due to SpaceX activities or more likely, there is not enough data to draw any conclusions about the current abundance and distribution of birds.

Birds and other wildlife are sensitive to human disturbances, especially ones with the capacity to generate noise, explosions, pollution and contaminants, vibrations, and other associated impacts, such as vapor clouds. Whether or not the activities/disturbances are causing birds to avoid the area – this is functional habitat loss and it's not effectively evaluated by the current monitoring scheme.

Compared to the Hicks et al 2018 report, smaller maximum group observations were recorded for Piping Plover (26) and Red Knot (7) with a distribution preference for all species being within the mud flats (Hicks et al 2020). Future Conservation Measures and/or requirements should take this into account, ensuring that mud and algal flats are protected to the fullest extent possible.

One of the Conservation Measures requirements was to monitor around the construction site for active avian nests during the breeding season (Feb 15 – Aug 31) and to protect those nests until they hatch or fail. Our partner, CBBEP has conducted beach-nesting bird monitoring since 2017 and ABC conducted monitoring in 2019. There was never any assistance from SpaceX and no active biologist that we were aware of outside of pre- and during construction activities conducted by the University of Texas RGV. Ongoing and regular environmental and species monitoring is critical to comprehensively understanding the impacts of SpaceX activities and to better mitigate for such activities that have negative impacts. It would be beneficial for the FAA and/or SpaceX to hire one or more biologists to assist and further support local stakeholders (i.e. refuge, WMA, state park, CBBEP, etc…) with biological monitoring and natural resource

management and to build a longer term, more consistent data set so that confident conclusions can be drawn about the impacts SpaceX activities are having on birds. Such a requirement was outlined in the Conservation Measures, but not consistently adhered to.

Additionally, we support the following existing Terms and Conditions which should be included in a future EIS. Additional comments are presented in italicized text.

- **"In the event that activities result in the direct take of an ...., piping plover, red knot, and/or nesting sea turtles, the person(s) responsible for monitoring shall notify the Service at 361-994-9005 immediately. A standard methodology for handling dead or injured species found during the project is to be established in coordination with the Service. This methodology shall be directed at determining the cause of death and ensuring that all data is recorded. The finder should ensure that the specimen and related evidence is not disturbed."** *SpaceX reports "no known take" in 2020, which applies to Piping Plovers and Red Knots, but based on opportunistic road mortality observations provided with these comments it is obvious that wildlife road mortality is occurring which would constitute unintentional take under the Migratory Bird Treaty Act, which should be address in an EIS.*
- **"In coordination with refuge staff, identify further options that would assist in protecting refuge lands and species habitats from impacts that may result from the public intrusions prior to closures. For example, vehicle barriers, in the form of short, spaced posts, sufficiently close together to prevent a truck or ATV from entering, but wide enough apart to allow for terrestrial animals to pass. This could be done alongside SH4 or other identified roads where the footprint is already disturbed."** *As previously mentioned, we are aware of coordination efforts with the Lower Rio Grande Valley NWR to establish protective fencing. Such measures are critical to protecting habitat and we encourage these practices. In 2019 and 2020, CBBEP and ABC observed tracks from off-road vehicles and/or ATVs/UTVs within the Piping Plover critical habitat, some of which came within inches of active Snowy Plover nests (see attachment).*
- **"To reduce impacts to piping plovers and red knots security patrol vehicles or other necessary equipment on the beach will be driven above the "wet line" to minimize disturbance of birds and protect feeding and roosting areas."** *It should also be pointed out and updated in a new EIS that vehicles should avoid dunes and sensitive coastal habitat behind the primary dunes. These areas are also used by migrating, foraging, resting, and breeding birds, as well as other wildlife. Further, maintaining dune structure is important since they act as a mainland defense against storm surge. More specific instruction on low-impact beach driving should be included in a new EIS.*

As stipulated by NEPA, and clearly outlined above, a new EIS is required for the current and future SpaceX activities in Boca Chica, Texas. We strongly urge the FAA to pursue development of a new EIS that will facilitate maximum public input and to more closely monitor SpaceX activities to ensure compliance with such requirements. In the interim, we suggest that the FAA closely consult with SpaceX and the cooperating agencies, US Fish and Wildlife Service and the National Park Service, to ensure that any current activities and mitigations are more closely adhered to in terms of what was originally proposed in the ROD until a new EIS can be

developed. Any expansion plans related to testing or increasing the overall footprint of the facility should be delayed until the impacts can be fully addressed in a new EIS that includes alternatives (i.e. offshore launches, alternate location(s), etc.) and an adequate public comment period.

We appreciate your attention to this request and look forward to being able to contribute to a new EIS that would solicit public comment. We offer our expertise to the FAA and SpaceX to mitigate impacts from activities that may have detrimental repercussions to the birds and the sensitive habitats they depend on in Boca Chica and south Texas. Please direct any questions to Kacy Ray, Gulf Coastal Program Manager at ABC (kray@abcbirds.org, 614.218.8838).

Regards,

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EJ Williams, Vice President of Southeast Region
American Bird Conservancy

Enclosure

CC: Edward Boling
Associate Director for NEPA Compliance
Council on Environmental Quality
Edward_a_boling@ceq.eop.gov

Mary Orms, Fish & Wildlife Biologist
USFWS – Southwest Region
Texas Coastal Ecological Services Field Office
mary_orms@fws.gov

Dawn Gardiner, Assistant Field Supervisor
USFWS – Southwest Region
Texas Coastal Ecological Services Field Office
dawn_gardiner@fws.gov

Bryan Winton, Refuge Manager
USFWS - Lower Rio Grande Valley NWR
bryan_winton@fws.gov

Kelly McDowell, Refuge Supervisor
USFWS - Texas Coastal National Wildlife Refuges

kelly_mcdowell@fws.gov

Scott Carleton, Chief
USFWS – Division of Migratory Birds Region 2
scott_carleton@fws.gov

Kendal Keyes, Regional Natural Resources Coordinator
Texas Parks and Wildlife Department - State Parks Division
Kendal.Keyes@tpwd.texas.gov

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1731 Connecticut Avenue, NW, 3rd Floor ● Washington, D.C. 20009
Tel: 202-234-7181 ● Fax: 202-234-7182 ● abc@abcbirds.org ● www.abcbirds.org

Highway 4 Roadkill between Border Patrol Checkpoint and Boca Chica Beach

Opportunistic observations made by biologist working 1-4 days per week.

Date	Species	Latitude	Longitude
2/14/2020	Bobcat	25.96221	-97 29709
3/4/2020	Snowy plover	25.96934	-97 20500
3/5/2020	Sanderling	25.97833	-97.19436
3/8/2020	Javelina	25.95408	-97 31744
3/10/2020	Plain Chachalaca	25.96200	-97 29136
3/14/2020	Black-tailed jackrabbit	25.99755	-97.15427
4/7/2020	Raccoon	25.96227	-97 27695
4/10/2020	Javelina	25.96330	-97 26193
4/10/2020	Raccoon	25.96231	-97 27688
4/10/2020	Raccoon	25.96231	-97 27688
4/12/2020	Javelina	25.95165	-97 33413
4/12/2020	Turkey vulture	25.96320	-97 26225
4/16/2020	Virginia opposum	25.95961	-97 30941
4/18/2020	Coyote	25.96355	-97 22379
4/25/2020	Nine-banded armdillo	25.95294	-97 32518
4/25/2020	Laughing gull	25.99817	-97.15724
5/1/2020	Nine-banded armdillo	25.96369	-97 26033
5/1/2020	Long-billed thrasher	25.96385	-97 23124
5/3/2020	Cottontail sp.	25.96412	-97 24478
5/5/2020	Striped skunk	25.93019	-97 36648
5/10/2020	Common nighthawk	25.99217	-97.17737
5/12/2020	Coyote	25.93148	-97 36546
5/18/2020	Cottontail sp.	25.96266	-97 26371
5/20/2020	Northern mockingbird	25.96266	-97 26371
5/27/2020	Coyote	25.96019	-97 30849
5/27/2020	Javelina	25.96304	-97 24930
6/6/2020	Javelina	25.96321	-97 26015
6/6/2020	Javelina	25.96372	-97 26015
6/8/2020	Javelina	25.95092	-97 33993
6/10/2020	Texas indigo snake	25.96190	-97 30026
6/12/2020	Harris's hawk	25.95229	-97 32999
6/13/2020	Javelina	25.96444	-97 24345
6/13/2020	Common nighthawk	25.99549	-97.16559
6/13/2020	Common nighthawk	25.99524	-97.16632
6/27/2020	Javelina	25.96234	-97 27162
7/3/2020	Nine-banded armdillo	25.96321	-97 25229
7/8/2020	Javelina	25.96307	-97 26230
7/11/2020	Raccoon	25.95269	-97 32711
7/11/2020	Western diamondback rattlesnake	25.93880	-97 35962
7/14/2020	Bobcat	25.96674	-97 20997
10/7/2020	Snowy Egret	25.96361	-97 22389
10/7/2020	Raccoon	25.96218	-97 28423
10/22/2020	Cottontail sp.	25.96440	-97 24369
10/22/2020	Striped skunk	25.96326	-97 25257
10/22/2020	Texas tortoise	25.95172	-97 33367
10/22/2020	Harris's hawk	25.94025	-97 35852
11/11/2020	Nine-banded armdillo	25.96360	-97 25876

Species	Totals
Javelina	10
Raccoon	5
Coyote	3
Nine-banded armadillo	4
Common nighthawk	3
Bobcat	2
Cottontail sp.	3
Texas indigo snake	1
Western diamondback rattlesnake	1
Snowy plover	1
Sanderling	1
Harris's hawk	2
Plain chachalaca	1
Northern mockingbird	1
Long-billed thrasher	1
Laughing gull	1
Turkey vulture	1
Black-tailed jackrabbit	1
Striped skunk	2
Virginia opposum	1
Snowy Egret	1
Texas Tortoise (state endangered)	1
22 species	**47**

Nest locations of Snowy Plovers in vicinity of SpaceX launch site – Boca Chica, Cameron County, Texas